Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

NAME OF WORK:- Drilling of Borewells And Providing Pump, Motor and Electrification Works To 110 Villlage Areas in Ward No-01 and Ward No 03 of Yelahanka Division

Estimation Cost.Rs 8000000.00

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
1	**Geophysical investigation** at site for sinking borewells for Providing drinking water to the habitation either through the Hand Pump MWS or P.W.S.S, by vertical electrical sounding by adopting Venner or Schlumbergers's method, including reconnaissance survey of geological formation. Geophysical investigation of existing ground water in the vicinity, its quality, quantity and acceptability of the users, indicating the location of the site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instruments and accessories to work site, engaging technical personal and labour required etc. NOTE: 1) Additional rate on item 1&2 is allowed for drilling in over burden and fixing Casing pipes beyond 20 M (for fixing Casing pipes only) a) Above 20 M and upto 30 M - 15%, b) Above 30 M - 30% (Measurement of overburden is restricted to the depth of casing pipe fixed excluding initial depth of 20M and projection above ground level). 2) A sum of Rs. 100/- is to be deducted for Dry Borewell towards yield test. etc. complete. (P.140, I.No-12.40) Vol-5 BWSSB.SR 2023-24								
		Each	7	1.00			**7.00**	**5816.80**	40717.60
	Basic Rate	**5288.00**							
	10% Area Weightage	**528.80**							
	Total	**5816.80**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (P.139, I.No-12.2.1) Vol-5 BWSSB.SR 2023-24								
	0-50mtrs	**Mtr**	7	50.00			**350.00**	**407.00**	142450.00
	Basic Rate	**370.00**							
	10% Area Weightage	**37.00**							
	Total	**407.00**							
3	50-100mtrs(P.139, I.No-12.1.2) Vol-5 BWSSB.SR 2023-24	**Mtr**	7	50.00			**350.00**	**510.40**	**178640.00**
	Basic Rate	**464.00**							
	10% Area Weightage	**46.40**							
	Total	**510.40**							
4	100-150mtrs (P.139, I.No-12.1.3) Vol-5 BWSSB.SR 2023-24	**Mtr**	7	50.00			**350.00**	**542.30**	**189805.00**
	Basic Rate	**493.00**							
	10% Area Weightage	**49.30**							
	Total	**542.30**							
5	150-200mtrs ((P.139, I.No-12.1.4) Vol-5 BWSSB.SR 2023-24	**Mtr**	7	50.00			**350.00**	**629.20**	**220220.00**
	Basic Rate	**572.00**							
	10% Area Weightage	**57.20**							
	Total	**629.20**							

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Sl No	Description of work	Unit	Mesurement				Qty	Rate	Ar
			No.	L	B	D			
6	200-250mtrs (P.139, I.No-12.1.5) Vol-5 BWSSB.SR 2023-24	Mtr	7	50.00			350.00	738.10	258335.
	Basic Rate	671.00							
	10% Area Weightage	67.10							
	Total	738.10							
7	250-300mtrs (P.139, I.No-12.1.6) Vol-5 BWSSB.SR 2023-24	Mtr	7	50.00			350.00	814.00	284900.
	Basic Rate	740.00							
	10% Area Weightage	74.00							
	Total	814.00							
8	300-350mtrs (P.139, I.No-12.1.7) Vol-5 BWSSB.SR 2023-24	Mtr	7	50.00			350.00	954.80	334180.
	Basic Rate	868.00							
	10% Area Weightage	86.80							
	Total	954.80							
9	Supply of ISI mark 175mm nominal bore,plain and steel **casing pipe** grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest ammendments, electrical resistance welded steel tubes, material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5-7m both ends.threaded conforming to IS 554-1985 one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes all shall be responsibaly free from defects. The tubes shall be responsible straight end should be with ISI marking weighing 25.10kg/m.prices include Collar-Medium duty.. (P.143, I.No-12.32) Vol-5 BWSSB.SR 2023-24								
		Mtr	7	50.00			350.00	2126.30	744205.0
	Basic Rate	1933.00							
	10% Area Weightage	193.30							
	Total	2126.30							
10	PVC pipes of 10 Kg/cm2 for 200mm (P.NO-A-44, SL.No-664) Vol-5 BWSSB.SR 2023-24								
		Mtr	7	10.00			70.00	1270.50	88935.00
	Basic Rate	1155.00							
	10% Area Weightage	115.50							
	Total	1270.50							
11	Providing and laying at site of work **MS casing caps** as per IS 1239 (partII) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge (P.143, I.No-12.34) Vol-5 BWSSB.SR 2023-24								
		Each	7	1			7.00	180.40	1263.00
	Basic Rate	164.00							
	10% Area Weightage	16.40							
	Total	180.40							
12	Providing,supplying to work site, Submersible Pump Set of 150mm dia suitable for bore well and confirming to IS 8034-2000;3Phase, SS Bowl & Impeller with Low volt Motor as per specifications,as per necessary ammendments and instructions of engineer incharge of work. 15.00 HP - 120 LPM @ 266 m = 23 STG Outlet Dia - 2.00" [P.153, I.No-13.18.6) Vol-5 BWSSB.SR 2023-24]								
		Each	7	1.00			7.00	76278.40	533949.0
	Basic Rate	69344.00							
	10% Area Weightage	6934.40							
	Total	76278.40							

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Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
13	Supply and delivery of galvanized mild steel tubes of 6mtr standard length heavy duty (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark 50mm [P.155, I.No-13.27.1) Vol-5 BWSSB.SR 2023-24]								
		Each	7	50.00			350.00	3355.00	1174250.00
	Basic Rate	3050.00							
	10% Area Weightage	305.00							
	Total	3355.00							
154	Supply and delivery at site wrought middle steel (galvanized) GI union confirming to IS 1239-II, 1991 with latest amendments if any. For 50 mm dia GI Union (BWSSB SR 2023-24 P-131, I-11.12.6)								
		Each	7	1			7.00	293.70	2055.90
	Basic Rate	267.00							
	10% Area Weightage	26.70							
	Total	293.70							
15	Providing wrought mild steel (galvanized) GI collar confirming to IS 1239-II, 1991 with latest amendments if any For 50 mm dia GI collar(P.129, I.No-11.6.6) Vol-5 BWSSB.SR 2023-24								
		Each	7	50			350.00	293.70	102795.00
	Basic Rate	267.00							
	10% Area Weightage	26.70							
	Total	293.70							
16	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (P.132, I.No-11.14.6) Vol-5 BWSSB.SR 2023-24								
		Each	7	3			21.00	234.30	4921.00
	Basic Rate	213.00							
	10% Area Weightage	21.30							
	Total	234.30							
17	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any for: (P.129, I.No-11.7.6) Vol-5 BWSSB.SR 2023-24								
		Each	7	3			21.00	293.70	6168.00
	Basic Rate	267.00							
	10% Area Weightage	26.70							
	Total	293.70							
18	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to13:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100 V as per IS-694:2010. 3C x 6 mm2 (P.7, I.No-2.6.3) Vol-VI [PWD Ele S.R 2023-24]								
		Mtr	7	600.00			4200.00	245.00	1029000.00
19	Labour charges for Erection, Electrification and commissioning of Pump sets, including aligning and balancing of all items including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges,tools and equipments etc., involved in the job as per specifications, with necessary tests as per specifications, with testing of as per instructions of engineer incharge of work. (P.156, I.No-13.32) Vol-5 BWSSB.SR 2023-24								
		Job	7	1			7.00	7150.00	50050.00
	Basic Rate	6500.00							
	10% Area Weightage	650.00							
	Total	7150.00							
20	Labour charges for erection of outdoor type panel board and meter boardunits with all necessary materials and labour, tools and equipments including providing cement concrete foundation bed etc., complete as per specification, with testing of as per instructions of engineer incharge of work. (P.156, I.No-13.34) Vol-5 BWSSB.SR 2023-24								
		Job	7	1			7.00	1595.00	11165.00
	Basic Rate	1450.00							
	10% Area Weightage	145.00							
	Total	1595.00							
21	1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 16 Sqmm, 4 Core, (11 GI Strips - 4 x 0.8 mm) (P.13, Sl. no-201, I.No-32.05) Vol-VI ESCOM.SR [CSR-2023-24]								
		Km	7	45.00			0.32	141842.00	44681.00

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Sl No	Description of work	Unit	Mesurement				Qty	Rate	Ar
			No.	L	B	D			
22	LABOUR For Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x16) (Street Light Control) (P.53, Sl. no-208, I.No-24.03) Vol-VI ESCOM.SR [CSR-2023-24]								
		Km	7	45.00			0.32	33109.00	10430.0
23	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia (P.157, I.No-13.39) Vol-5 BWSSB.SR 2023-24)								
		Job	7	1			7.00	4125.00	28875.00
	Basic Rate	3750.00							
	10% Area Weightage	375.00							
	Total	4125.00							
24	Providing,Supplying and fixing suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps,bolts,nuts and washers etc. with necessary materials and labour tools and equipments as per instructions of engineer incharge of work. 3½x6 Sqm (P.156, I.No-13.38.1) Vol-5 BWSSB.SR 2023-24)								
		Each	7	1			7.00	412.50	2888.00
	Basic Rate	375.00							
	10% Area Weightage	37.50							
	Total	412.50							
25	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws 20" x 20" x 2.5" (P.14, I.No-5.6.6) Vol-VI [PWD Ele S.R 2023-24]								
		Nos	7	1			7.00	326.13	2283.00
26	Supplying fully automatic star-delta starter unit push button type with suitable wires, 3 contactors, one adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 V 3 phase and wired after fixing to the existing wooden board for motor Above 12.5 HP upto 25 HP (P.14, I.No-5.2.2) Vol-VI [PWD Ele S.R 2023-24]								
		Nos	7	1			7.00	8764.00	61348.00
27	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments Size 50 mm [P.154, I.No-13.24.1) Vol-5 BWSSB.SR 2023-24]								
		Each	7	1			7.00	1375.00	9625.00
	Basic Rate	1250.00							
	10% Area Weightage	125.00							
	Total	1375.00							
28	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments Size 50 mm [P.154, I.No-13.25.1) Vol-5 BWSSB.SR 2023-24]								
		Each	7	1.00			7.00	1375.00	9625.00
	Basic Rate	1250.00							
	10% Area Weightage	125.00							
	Total	1375.00							

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Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
29	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. [P.155, I.No-13.26) Vol-5 BWSSB.SR 2023-24]								
		per 3 Poles	7	1			7.00	1265.00	8855.00
	Basic Rate	1150.00							
	10% Area Weightage	115.00							
	Total	1265.00							
30	**Earth work excavation for pipelines/cables** by Manual means upto 600 mm trench width, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, including dressing of excavated surfaces, disposing off or leveling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m. Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering and lift upto 1.5 m including cost of labour, tools, usage& other appurtenances required to complete the work. (PWD SR 2023-24 Vol -I Pg No 6 item no 1.6.1)								
	For Connecting borewell	Cum	7	188.00	0.45	0.75	444.15		
							444.15	532.40	236466.00
	Basic Rate	484.00							
	10% Area Weightage	48.40							
	Total	532.40							
31	Providing and installing at site of work 6 Kg/m2: 63mm(weight of pipe -0.662 kg) P.V.C. pipes including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour charges and all lift charges, handling charges including encasing the pipe around to a depth not less than 15 cms with gravel or selected earth available from the excavation etc. complete. [P.120, I.No-10.14.8) Vol-5 BWSSB.SR 2023-24]								
	For Connecting borewell	mtr	7	188.00			1316.00		
							1316.00	13.90	18293.00
	Basic Rate	139.00							
	10% Area Weightage	13.90							
	Total	152.90							
32	Refilling available earth around trenches/pipelines, cables in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering with a lead upto 50 m , and lift upto 1.5 m. Including cost of all labour complete as per specifications (PWD SR 2023-24 Vol -I Pg No 7 item no 1.10)								
	For Connecting borewell	Cum	7	188.00	0.45	0.40	236.88	176.00	41690.88
	Basic Rate	160.00							
	10% Area Weightage	16.00							
	Total	176.00							
33	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density (V-III, P.No-26,I No-4.17)of PWD SR 2023-24)								
	For Connecting borewell	Cum	7	188.00	0.45	0.30	177.66		
							177.66	2814.90	500096.00
	Basic Rate	2559.00							
	10% Area Weightage	255.90							
	Total	2814.90							

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Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
34	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.38, I.No.5.16C of PWD SR 2023-24).								
	For Connecting borewell	Cum	7	188.00	0.45	0.04	24		
	Basic Rate	**10954.00**							
	10% Area Weightage	**1095.40**							
	Total	**12049.40**					**23.69**	**12049.40**	285426.19
35	**BESCOM Charges**	**Nos**	7				**7.00**	**20000.00**	140000.00
								Total of Other SR Items including GST Unit Rate	140000.00
								Total of PWD SR, BWSSB SR ,Electrical SR, ESCOM SR 2023-24	6658586.57
								Sub Total	6798586.57
								GST 18%	1198545.58
								Total	7997132.15
								Miscellenious and rounding	2867.85
								Total Amount	8000000.00
									RUPEES Eighty Lakhs Only

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on PWD SR, BWSSB SR ,Electrical SR, ESCOM SR 2023-24

AE	AE	Assistant Executive Engineer	Assistant Executive Engineer	Executive Engineer
Ward-01	Ward -03	Yelahanka sub division, BBMP	Yelahanka Sateilite Town Sub Division, BBMP	Yelahanka Division, BBMP

Administrative Sanction for Rs. ...80.00 Lakhs
...Rupees Eighty lakhs Only.....
.....
is accorded under head ...P-3803.....
.....15th Finance.....
.....
Registered as CE No. .....64..... Subject
to conditions contained in enclosed memo
No.BBMP/EE/YNK-D/AS/64/23-24 Dt. 14/03/2024

Executive Engineer

Technical Sanction
Accorded For Rs 80.00 lakhs
Head of A/C P-3803
CER NO 66/23-24 Dt. 02-02-24

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